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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,082	05/22/2006	Thomas Huber	59482.21880	3687

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EXAMINER

O'HARA, BRIAN M

ART UNIT	PAPER NUMBER
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3644

NOTIFICATION DATE	DELIVERY MODE
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08/11/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@bakerlaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/565,082	HUBER ET AL.	
	Examiner	Art Unit	
	BRIAN M. O'HARA	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 10-34 is/are pending in the application.
- 4a) Of the above claim(s) 11-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10 and 32-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims 11-31 drawn to an invention nonelected with traverse in the reply filed on 11/24/2010. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 1-4, 10, and 32-34 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "only very slightly" in **claims 1-4 and 34** is a relative term which renders the claim indefinite. The term "only very slightly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is impossible to determine how much force in the transverse direction is being transferred to the skin.

5. **Claim 1** recites the limitation "cargo compartment" in line 4. There is insufficient antecedent basis for this limitation in the claim.

6. **Claims 3 and 34** recite the limitation "said longitudinal beams and said ribs". There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3644

7. **Claims 10, 32, and 33** are rejected for being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 3, 4, 10, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinson (US Patent 5,322,350 A) in view of Helmer (US Patent 5,170,968 A).**

10. Regarding **Claim 1**, Hinson discloses a vehicle having an outer skin (16) comprising:

a cargo deck (see plurality of 20 in Fig. 4) being adapted to receive loads ("secure loads"; See Column 2, Line 23) and comprising a plurality of floor modules (20), which are fixed within the cargo compartment (inside of 15) and define said cargo deck (when multiple units are inserted), and

a plurality of longitudinal profiles (42) attached to said outer skin ("welded to interior of trailer bed" See Column 2, Lines 58-59), and

wherein each of said floor modules comprises at least a first and a second transverse beams (22 at the front and back of each module along with 23 and 24) that extend across of a width of said vehicle (See Fig. 8), each end of said transverse

Art Unit: 3644

beams resting on an upper surface (See 22 on top of 42 in Fig. 8) of a respective one of said longitudinal profiles (42),

each of said floor modules (20) comprises a plurality of profile elements (21) that extend in a longitudinal direction of said vehicle along a respective upper surface of at least one of said floor modules (from front 22 to rear 22), said plurality of profile elements comprising at least one peripheral profile (left and right profiles containing 27) located at an edge region (near 23 and 24) of the respective floor module proximate to said outer skin (16); and

said at least one peripheral profile is connected (at 27, See Column 2, Line 34-39) to said outer skin by means of a plurality of intermediate elements (30) such that forces in said longitudinal direction of said vehicle are transferred from said at least one peripheral profile to said outer skin, whereas forces perpendicular to said longitudinal direction of said vehicle are transferred only very slightly to said outer skin by said intermediate elements (see longitudinal tension in 30 as shown in Fig. 4).

Hinson teaches use of the cargo compartment system in a semicircular vehicle, but is silent on use in the fuselage of an aircraft. Helmer teaches an arrangement for loading of a cargo compartment (3) of an aircraft fuselage (See Abstract) and uses floor modules (143) and profile elements (146). At the time of invention, it would have been obvious to one of ordinary skill in the art to provide the cargo deck of Hinson in an aircraft fuselage in view of the teaching of Helmer. The motivation for doing so would have been to use the removable floor units of Hinson in both aircraft and land vehicles; i.e. cargo could easily be transferred from an aircraft to a truck for local delivery.

Art Unit: 3644

11. Regarding **Claim 10**, Hinson and Helmer disclose the aircraft as described above and Hinson further discloses: said modules are decoupled from one another (they are not directly fixed to each other) with respect to forces acting in the long direction of the aircraft.

12. Regarding **Claims 32 and 33**, Hinson and Helmer disclose the aircraft as described above and Hinson further discloses: a bottom surface of said at least one peripheral profile (21 containing 27) abuts an upper surface of said at least one of said plurality of intermediate elements (hooks of 30 go through 27 and so abut both the upper and lower surface of 21); and said longitudinal profiles and said intermediate elements are manufactured from a sheet material (aluminum).

13. Regarding **Claims 2-4, and 34**, Hinson discloses a vehicle having a fuselage (10) comprising an outer skin (16) said vehicle comprising:

a cargo compartment (volume inside 15) being adapted to receive loads ("secure loads"; See Column 2, Line 23) and comprising a plurality of floor modules (20), which are fixed within the cargo compartment and define a cargo deck (as shown in Fig. 4), and

a plurality of longitudinal profiles (42) attached to said outer skin,

wherein each of said floor modules comprises at least a first and a second transverse beams (22 in the front and back of 20 as shown in Fig. 6) that extend across of a width of said aircraft (from 42 to 42 in Fig. 5), each end of said transverse beams resting on an upper surface (top of 42) of a respective one of said longitudinal profiles,

each of said floor modules comprises a plurality of profile elements (21) that extend in a longitudinal direction of said vehicle along a respective upper surface (from front 22 to rear 22, each having an upper surface) of at least one of said floor modules, said plurality of profile elements comprising at least one peripheral profile (left and right profiles 21 containing 27) located at an edge region (left and right side) of the respective floor module proximate to said outer skin (16); and

said at least one peripheral profile is connected to said outer skin by means of a plurality of intermediate elements (30+31) such that forces in said longitudinal direction of said aircraft are transferred from said at least one peripheral profile to said outer skin, whereas forces perpendicular to said longitudinal direction of said aircraft are transferred only very slightly to said outer skin by said intermediate elements (see longitudinal tension in 30 as shown in Fig. 4),

Further regarding Claim 2, Hinson discloses wherein said transverse beam having at least one supporting foot (43) configured and adapted to be fastened to the fuselage (See Fig. 5 and Column 2 Lines 57-62) of said aircraft at a bottom region of said aircraft, the supporting foot being adapted to transmit vertical loads on the floor modules to the fuselage (43 supports 42 which supports the loads on the removable floor units).

Further regarding Claim 3, Hinson discloses wherein at least one of said longitudinal beams and said ribs comprise at least one of bores (27), rapid-closure elements and similar fixation devices for attachment of the floor modules thereto.

Further regarding Claim 34, Hinson discloses wherein said transverse beams comprise at least one of either bores (28) and rapid- closure elements for attaching said floor modules to said longitudinal profiles.

Hinson teaches use of the cargo compartment system in a semicircular vehicle, but is silent on use in the fuselage of an aircraft. Helmer teaches an arrangement for loading of a cargo compartment (3) of an aircraft fuselage (See Abstract), said fuselage comprising multiple barrel-shaped fuselage sections (front section near 8 and rear section containing 9) and uses floor modules (143) and profile elements (146). At the time of invention, it would have been obvious to one of ordinary skill in the art to provide the cargo deck of Hinson in a multiple barrel-shaped aircraft fuselage in view of the teaching of Helmer. The motivation for doing so would have been to use the removable floor units of Hinson in both aircraft and land vehicles; i.e. cargo could easily be transferred from an aircraft to a truck for local delivery.

14. **Claims 4 and 34 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Hinson and Helmner as applied to claims 3, 4, and 34 above, and further in view of Vassiliev et al. (US Patent 6,070,831 A).** If applicant does not agree that Helmner teaches an aircraft with multiple barrel shaped fuselage sections, Vassiliev et al. is presented which teaches an aircraft with multiple barrel shaped fuselage sections (102a-c). It is further noted that virtually all large passenger and cargo aircraft have fuselages which have multiple barrels stitched or welded together to form one fuselage. At the time of invention, it would have been obvious to one of ordinary skill in the art to provide the cargo loading structure of Hinson and Helmner on an

Art Unit: 3644

aircraft with multiple barrel sections for the fuselage. The motivation for doing so would have been to use the cargo loading system on a large long modern aircraft.

Response to Arguments

15. Applicant's arguments filed 06/03/2011 have been fully considered but they are not persuasive.

16. On Page 17 Lines 6-16, applicant argues that one of ordinary skill in the art would not combine Hinson and Helmner because truck and aircraft have different design considerations. The disclosure of Hinson teaches using lightweight materials (aluminum) and a semicircular cargo compartment which are both applicable to common aircraft practices. The examiner agrees that "there are different considerations such as weight, pressurization cycles and a myriad of other differences and considerations when considering truck design verses aircraft design" and that one of ordinary skill would have the ability to optimize the system of Hinson for either type of vehicle.

17. On Page 17 Line 17 through Page 18 Line 4, the newly cited amended language of Claim 1 has been addressed in the office action above.

18. On Page 18 Line 5 through Page 19 Line 11, applicant argues that Helmner does not cure the deficiencies of Hinson, and neither do Fenner et al. or Bergholz. These arguments are not seen to be commensurate with the rejection set forth in the 02/03/2011 office action. Helmner has only been used to teach an aircraft and Fenner et al. and Bergholz were not applied in the rejection. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking

Art Unit: 3644

references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

19. On Page 19 Line 12 through Page 20 Line 8, applicant argues (re Claim 2) that Hinson does not disclose a foot. Applicant's arguments with respect to claim 2 have been considered but are moot in view of the new ground(s) of rejection.

20. On Page 20 Line 9 through Page 21 Line 4, applicant argues newly amended language in Claims 3 and 4 which has been addressed by this office action above.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN M. O'HARA whose telephone number is (571)270-5224. The examiner can normally be reached on Monday thru Friday 10am - 5pm except the first Friday of every Bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy D. Collins can be reached on (571)272-6886. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSHUA J MICHENER/
Primary Examiner, Art Unit 3644

/B. M. O./
Examiner, Art Unit 3644